CAAP Annual Report

Date of Report: *October 19, 2016*

Contract Number: *DTPH56-14-H-CAP01*

Prepared for: *DOT*

Project Title: *Patch and Full-Encirclement Repairs for Through-Wall Defects*

Prepared by: *The University of Tulsa*

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For quarterly period ending: *October 10, 2016*

Business and Activity Section

(a) Generated Commitments

There have been no changes in project participants since the last quarterly report.

Supplies Purchased	Cost
Test system supplies and piping	827.86
Strain gages	197.43

(b) Status Update of Past Quarter Activities

During this past quarter, we have accomplished the following research activities

1. Completed fatigue testing of small scale samples.
2. Begun large scale testing.

Student in charge of following research: Stephen Theisen (M.S. – expected fall 2016)

Large Scale Specimen

We have begun testing the large scale specimen for the through-wall repairs. As expected from our experience with the related project, the cycle times are significantly slower than was originally planned for. We have contacted all partners in this project and working with them to come up with solutions for this unexpected issue. We are modifying our test system to enable for a 24 hour runtime to reduce the total time needed to achieve 100,000. Cycles.

(c) Description of any Problems/Challenges

As mentioned above cycle times are approximately 4 times longer than our planning estimates due, primarily, to pump performance. We have contacted our DOT program officer and the participant companies and are working on contingency plans to complete this test. We expect that the cycling should be complete before the December end date of the program. However, a significant pumping system failure

could jeopardize this projection. We are in communication with all stake holders to help define contingency plans and alternatives.

(d) **Planned Activities for the Next Quarter** –
Since we are in the testing phase, our planned activities for the next quarter are similar to those of last quarter (ending August 31).

1. Continue large scale testing.